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Guatemala: Improving malnutrition and increasing health

Guatemala is located in Central America at the southern tip of Mexico between the Caribbean Sea and the Pacific Ocean. It has a total area of 42,042 square miles, which is slightly smaller than the state of Tennessee. Belize, Honduras, El Salvador, and Mexico all share boundaries with Guatemala. Guatemala also has 249 miles of coastline along the Pacific Ocean and the Caribbean Sea. Guatemala City, the nation's capital, is the home of 2 million Guatemalans and is located in south-central Guatemala. Guatemala has an estimated population of 16,002,743 with a population growth rate of 1.948% (Encyclopedia of the Nations). The largest population bracket in Guatemala consists of infants and small children, between less than one year and 15- year olds. They make up 37.4% of the population, making getting food, having enough food, and the right food a high priority in most families.

The typical family size in Guatemala is 7, meaning that the average Guatemalan women has about 5 children (Encyclopedia of the Nations). Education in Guatemala is free and required for 6 years. They have a 3-tier system of education starting with primary school, followed by secondary school, and tertiary school. Despite education being required and provided free by the government, the averages for number of years of completed education are pretty low. The overall average is 4.9 years. The average number of years of completed education among the wealthiest 20% of Guatemalans is 9.5 years and this group of people uses 58% of the total income of Guatemala per year. The poorest 20% of Guatemalans average only 1.3 years of schooling and make \$1,619 per year according to the World Bank 2010 data. Of those children who start school in the first grade, only 60% finish 6th grade and only 39% are the proper age when they complete it. 94 Guatemalans to every 99 Americans finish primary school and 36 Guatemalans to every 93 Americans finish secondary school. The Guatemalan government devotes 16% of its budget to education which is \$1.37 billion. Guatemala's government devotes such a small percentage of money to education because it is one of the poorest Latin American countries so there is only so much money to start with. Even though the government devotes money to education nearly 37.1% of the country's nearly 16 million people are illiterate, with illiteracy rates up to more than 60% in the native population.

In rural areas education has started to become more available in recent years then it has in the past, but classroom space, teaching materials, classroom equipment and furniture, and water and sanitation do not meet the minimum standards that are set. With more than half of the population of Guatemalans living below the poverty line, it is difficult for school children, especially native children, to afford the rising cost of school uniforms, books, supplies, and transportation, all of which are not supplied by the government. The poverty line in Guatemala is defined as income that is insufficient to purchase a basic basket of goods and services. The cost of these goods and services is approximately \$490 a month. This includes food, clothing, housing, education, health, transport, and other goods and services for a family of five. To send an elementary student to school in Guatemala costs \$120 per year for school supplies, craft supplies, and even toilet paper. To send a middle school child to school in Guatemala it costs \$360 per year for books, uniforms, and tuition. To send a high school student to school in Guatemala, it costs \$600 per year. This is made worse by the fact that, for poorer students, time spent in school could be better spent in the field supplying money and food for the family. As a result, most children living in the rural areas drop out due to lack of healthy and available schools.

40% of Guatemalans lack access to health care. A combination of both supply and demand constraints limits the ability of them to seek health care services. The supply-side constraints of health care are more effective in rural areas then in urban areas. The rural people of Guatemala have access to three sectors of care; the popular sector, the folk sector, and the professional sector. In the popular sector, the people may self-treat by using herbal preparations that they collect from nature or from purchasing them at a drug store run by a drug vendor that typically lacks formal training. If the people decide that it is necessary to see a practitioner, they can us either the folk sector or the public sector (Journal of Global Health Perspectives).

The Guatemalans typically have access only to health posts that offer limited services in primary care, and are run by a nurse or medical student. Hospitals are usually farther away and private physicians are sometimes available in communities but their services are expensive for a majority of the rural population. So, when the Guatemalans become sick, the few options that they can afford are self-treatment, care from a traditional healer, or receiving treatment from a public health care post in the region. Close to 80% of physicians are located in urban areas, making access to health care difficult for the rural populations (Encyclopedia of the Nations). Health care coverage is low, with more than 40% of the population receiving no access to health care as mentioned before. Important steps have been taken to increase access to health care and public spending has shifted toward preventative care. Preventative care is essential for treating the health problems faced by the poor. Despite the steps taken and the effort put forth, health conditions have not significantly improved.

The average farm size in Guatemala is 1.5 hectares which is about 3.7 acres. 2.5% of the country's farms control 65% of agricultural land, while 88% of all farms occupy 16% of the land. Approximately 40% of the rural population does not own land (Rural Poverty Portal). The main crops grown in Guatemala are coffee, sugar, bananas, and cotton. They also grow corn, rice, beans, sorghum, potatoes, soybeans, fruits, and vegetables. They also raise cattle, pigs, sheep, goats, and poultry for food and use on their farms (Encyclopedia of the Nations). Guatemalan agricultural practices are not always the best. Many are very uneducated about the right agricultural practices and don't know that the ones they are using are not beneficial. Some, however, do understand what is good for their crops. These farmers have abandoned the use of pesticides and chemical fertilizer because they realized it did boost crop yields in the short term, but it polluted water sources and depleted the soil. They learned this information through partnerships with organizations in Guatemala. United States organizations are partnering with Guatemalan organizations to educate farmers. Not all farmers can receive this education because work starts in small areas and it takes a long time to get around to other Guatemalans and to spread the word. Educated farmers are now going back to old farming practices done by their ancestors. Such practices are fair trade, protection of native seeds, and responsible consumption of these seeds. They have also learned new practices such as crop rotation, soil retention to reduce erosion, and harvesting techniques to improve harvest efficiency (Countries and Their Cultures).

The people of Guatemala face many barriers in their everyday life. One barrier is the lack of ability to improve their agricultural practices. The reason they are unable to improve their agriculture is because they lack funding from the government for it and agriculture has declined. Also, they are unable to improve agriculturally because they are leaving a very important part of agriculture out of discussions and decisions; women. Rural women produce half of the world's food and between 60 and 80% of food crops. So when women are left out of the discussion you are leaving out 60 to 80% of the land and food in Guatemala.

Another barrier they face is employment and getting paid enough to survive. Most of the Guatemala workers do not receive minimum wage and native workers receive even less. Minimum wage in

Guatemala is \$8.16 for Agricultural related jobs and \$7.61 for factory jobs. An article in the *Guatemala Times* reports that over 60% of workers in Guatemala earn less than the minimum wage. Some residents in rural Guatemala earn just over \$3.42 a day, which is not near enough to provide the family with a diverse diet (DW Akademie). Because of this, people are not able to feed their families, making it difficult to survive.

Guatemalans also face barriers to accessing food markets and getting adequate nutrition. Most of the food markets are located in the cities along the Inter American Highway that goes through the capital city of Guatemala City. Because most of the major food markets are located in the cities, it is very difficult for rural families to access these food markets. They are unable to access these markets due to roads that are not able to be traveled or not enough money to travel (World Food Programme PDF). Also, some are unable to make the long trips because they won't survive due to sickness or they will die of starvation. Guatemalans get their main source of calories from basic grains such as maize, wheat, and rice. These three grains account for more than 55% of the total daily intake, but because some people don't have enough money they are unable to receive their adequate nutrition. In the case of wheat and rice, consumption of them is based on income; the higher the income the more rice and wheat you have to consume (World Food Program PDF). Because of this, poorer families are unable to get wheat and rice, causing them to lack the nutrition they need. Due to the lack of adequate nutrition in the diets of Guatemalans, 17% of the population is considered undernourished.

Malnutrition is a huge problem in Guatemala. Guatemala is the largest and most populated Central American country. It has the third highest level of chronic malnutrition in the world. About 57% of the population lives in poverty and 22% live in extreme poverty (World Food Programme PDF). So as you can see malnutrition is a huge barrier. It affects every day rural families. For children under five, nearly 50% are malnourished. Mothers try to supply adequate nutrition for their children by working and spending every bit of their income on food, but sometimes the money just doesn't go far enough. Especially when a mother has 4 or more kids, the money she makes isn't enough to supply all of her children with adequate food. Many are, therefore, malnourished. Men and women in rural areas work in the field and engage in agriculture, but the crops they grow are different. Men tend to grow basic grains such as corn and beans and export crops such as green beans and snow peas. Women grow fruits and vegetables for local consumption and sale, as well as herbs and spices.

As mentioned before, nearly 50% of children under 5 are malnourished, and for native people the rate is even higher; 70% (Oxfam). Guatemala is one of the 36 countries that account for 90% of stunting in the world. Chronic under nutrition in native areas is 69.5%. The most vulnerable groups to malnutrition are native women and children living in the highlands. Women are definitely at a disadvantage in Guatemala. They produce half of the world's food and receive just 7% of total aid from the government (World Food Programme). Also, the money they do receive from working they spend on their children and they let themselves go to bed hungry.

Hunger remains a problem in Guatemala every day. As of right now malnutrition is not getting any better, and with the rising fertility rates, it is fixing to get worse. The government is attempting to set up programs to help with the hunger and malnutrition. In a small village in the mountains outside of Guatemala, known as Pamumus, 67 of the 112 children living there are chronically malnourished. Almost one in every two Guatemalan children under five years old suffers from chronic malnutrition (DW Akademie). Not just here but in many other villages there is a shortage of proteins and vitamins and some minerals that are essential for the growth and development of a child. The situation of malnutrition is changing. The government is realizing just how bad it really is. They are stepping in and trying to set up programs to help. As of right now, the government is trying to send out more vitamins and food

supplements to needy children (DW Akademie). If these items are reaching rural families, it will help reduce the malnutrition rates and better the lives of rural families.

Improving malnutrition would greatly benefit not only rural families, but the entire country. If malnutrition was resolved, the families would be much happier. Ending malnutrition would be a start to ending poverty. If children were nourished, then their family would have enough money to feed them and can put money toward other things such as better housing. Also, if malnutrition was greatly improved, people in Guatemala would be normal height because chronic malnourishment causes stunted growth. Malnourishment also causes stunted mental development, a lower IQ, and a weaker immune system. Chronic malnutrition begins with pregnancy, often among women who are stunted from their own experience with malnutrition during their childhood (Inter-American Development). So if malnutrition were resolved women would benefit because they wouldn't be stunted in growth and their children wouldn't suffer from it either. It would take a lot of work to end malnutrition in Guatemala, though, because it would be very difficult to raise a country out of poverty when you are trying to do it with a population in which over half of them are not physically and mentally strong because of malnourishment. It is very difficult to lessen malnutrition when dealing with a population that is lacking physical and mental strength. These people continue to pass the malnutrition onto their children. In order to end it, sufficient food needs to be given to the people of Guatemala.

Population growth would majorly affect malnutrition in Guatemala. If the population would increase, there would be even more people to feed and less food to go around. There would be even more malnourished people and even more deaths in the country from starvation. A family in Guatemala would suffer greatly in the future because there would be less food to feed their family. It would cause malnutrition rates in the country to rise and in the end the entire country will suffer.

Malnutrition, starvation, and health are all very sore subjects in a country like Guatemala that suffers these kinds of things every day. The first thing that should be done to address the situation of malnutrition in the country is let our entire world know what exactly is happening. People have a general idea, but unless you know the details, people may not care about it too much. They need to know exactly what is happening to the poor people each and every day; what they have to go through. After letting everyone know about the situation, traveling to Guatemala and trying to teach the people about safer methods of obtaining food and more effective and efficient farming techniques would be the next step. A huge problem in Guatemala is that the people just don't know. They don't know any better way to farm or get food. They need to be educated about it so they can improve their lives and the lives of their children. This education needs to come from international aid, such as the United States. The United States gave \$144,633,432 to Guatemala in 2013. This money can always help, but I think the United States as a nation needs to divide it up evenly among all aspects that need it in Guatemala because only \$5,999,568 of that money went to educating people about food. Another recommendation would be for foreign countries to put money toward classes that farmers can take part in to learn more about crops and food, even if they haven't received a lot of formal schooling.

After educating as many people as possible, it is recommended to talk to sponsors and the government of both Guatemala and the United States. It is recommended for them to give money toward the situation, improve the ways people are getting food, and add money to the agriculture budget. At this point, anything like that will help. Also, Guatemalans can form committees and use these committees to campaign for better food in Guatemala. Most of the help for Guatemala is going to have to come from elsewhere in the world because there is a lot of social and political unrest in Guatemala, so the committees will be unable to get very far in the government, but it will be a start.

There is a local project in Guatemala going on right now called the Zero-hunger strategy. Last year, President of Guatemala, Otto Perez Molinait, signed a Zero Hunger Pact that plans to cut chronic malnutrition levels by 10 percent by the end of 2015. The government has begun to hand out vitamins and food supplements to needy children in a small village called Pamumus. They also plan to provide better seeds to farmers and hold campaigns promoting breastfeeding and general hygiene (DW Akademie). As of right now this is just going on in Pamumus and it could be scaled up to provide the seeds, campaigns, and vitamins to all of the Guatemalans that need it, not just one village. It would take more money, but it would be worth it to improve the lives of so many people.

As for people and organizations that can help scale this up. The national government can start by recognizing the problem and then pitching in money wherever it is needed. Organizations that package meals to be sent to the needy can pitch in and supply meals to be sent to Guatemala. As for local communities, they can start by putting up posters and raising money in their towns to get the word out that Guatemala needs their help and every little bit will count. The typical family can help by volunteering to help package food, or they can pitch in a little money. They can even send care packages filled with essentials to the Guatemalans.

No one is too big or too small to help. No project is too big if everyone pitches in. If you get everyone focused on the cause, you can make a huge impact in the lives of many Guatemalans. You will even be surprised at the impact it makes on you.

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